•• REMARKS/ARGUMENTS ••

The Official Action of September 5, 2003 has been thoroughly studied. Accordingly, the changes presented herein for the application, considered together with the following remarks, are believed to be sufficient to place the application into condition for allowance.

The Abstract of the disclosure has been changed to correct an inadvertent typographical error.

Also by the present amendment independent claim 1 has been changed to recite "a butyl rubber composition for use as a molding material for sealing of a carbon dioxide refrigerant..."

In addition new claims 9-11 have been added which are directed to a sealing material for a carbon dioxide refrigerant molded from the butyl rubber composition of claim 1.

In addition new claims 12 - 15 have been added which are directed to a butyl rubber composition that is formulated so that carbon dioxide is substantially non-soluble in the composition, which butyl rubber composition consists essentially of butyl rubber and carbon black. As explained on page 2 of applicants' specification, it is the combination of the butyl rubber composition and the carbon black that prevents bubbles from forming when the composition is contacted with carbon dioxide refrigerant. Thus, the butyl rubber and carbon black are considered to be essential ingredients for the recited property that carbon dioxide is substantially non-soluble in the composition. Other ingredients such as fillers, coupling agents cross-linking agents, etc. can be

incorporated into the composition as discussed in the specification so long as their presence does not adversely affect the solubility of carbon dioxide in the composition.

Finally, new claim 16 has been added which recites a carbon dioxide resistant sealing element that comprises butyl rubber composition which includes 100 parts by weight of butyl rubber and 30 to 150 parts by weight of carbon black having a CTAB (cetyltrimethylammonium bromide) specific surface area of 30 to 100 m^2/g.

Support for the amendments to the claims can be readily found in the specification. Care has been taken to avoid adding any new matter into the claims.

Entry of the changes to the claims is respectfully requested.

Claims 1-16 are pending in this application.

Claims 1-8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,407,166 to Wang et al.

For the reasons set forth below, it is submitted that each of the pending claims are allowable over the prior art or record and therefore, the outstanding prior art rejection of the claims should properly be withdrawn.

Favorable reconsideration by the Examiner is earnestly solicited.

The Examiner has relied upon Wang et al. as disclosing "the instantly claimed carbon black and its amount for use in air conditioning sealing materials and the matrix can be butyl rubber."

The Examiner states that:

> It would have been obvious....to use the instantly claimed amount of the instantly claimed carbon black in butyl rubber matrix as the instantly claimed air conditioner

components because these are encompassed by the patentee and would have been expected to give the properties disclosed by the patents to such seals.

Wang et al. does not mention carbon dioxide or any type of refrigerant. At column 12, lines 34-40 Wang et al. does mention "sealing materials" and "gaskets." However, the context is for "dampening and vibration restraining materials" and "connecting materials such as sealing materials, packing, gaskets and grommets."

At column 12, lines 42-45 Wang et al. mention "air-conditioners" and "refrigerators." However, the context is to use the vibrational dampening materials to reduce or eliminate vibration and noise in such equipment.

Wang et al. does not teach compositions that are suitable for use in sealing carbon dioxide refrigerants.

Accordingly, although the Examiner may rely upon Wang et al. as teaching compositions that can be used in air conditioner components, the Examiner cannot rely upon Wang et al. as teaching compositions that are suitable for use in sealing carbon dioxide refrigerants.

Likewise, there is no basis for the Examiner to take the position that: "[i]t would have been obvious....to use the instantly claimed amount of the instantly claimed carbon black in butyl rubber matrix..." because the amount of carbon black used in applicants' butyl rubber composition is related to carbon dioxide insolubility of the compositions as discussed on page 2 of applicants' specification.

Wang et al. is directed to "Elastomeric Compositions for Damping" as stated in the title. The compositions include an elastomeric binder or matrix and a dampening additive.

The carbon black which Wang et al. includes (as relied upon by the Examiner) is used as a reinforcing agent. Wang et al teach that the carbon black has a surface area of "at least 20 m^2/g" and further teaches that surface areas of "up to 200 m^2/g or higher are preferred."

Applicants' claim the use of a carbon black that has a surface area of 30 to 100m^2/g.

It is accordingly submitted that applicants' range of surface area for the carbon black is narrower that that taught by Wang et al, and substantially below the "preferred" range of "200 m^2/g or higher."

Moreover, inasmuch as applicants' claimed surface area is directly related to the ability of applicants' compositions to function as seals for carbon dioxide, it is submitted that: 1) applicants' invention is considered to distinguish over Wang et al. as a selective invention and 2) the preferred surface areas of Wang et al. that are "up to 200 m^2/g or higher are preferred" demonstrate that Wang et al. does not recognize, appreciate or otherwise render obvious applicants' invention which is directed to a butyl rubber composition in which carbon dioxide is non-soluble and which composition is therefore useful as a sealing material for carbon dioxide refrigerants.

Obviousness cannot be predicated on what is not known or recognized.

It is further noted that applicants require 30 to 150 parts by weight of the carbon black while Wang et al. teaches about 1 to 100 parts by weight of carbon black.

At column 3, lines 38-57 Wang et al. teach virtually any kind of elastomeric material can be

used as the binder or matrix. From such a broad teaching, the selective use of butyl rubber in applicants' composition is not believed to be obvious for purposes of providing a composition that is useful as a sealing material for carbon dioxide refrigerants. Note, Wang et al. only teaches elastomeric compositions that are useful for purposes of vibration dampening.

Note also that it has been held that a prior art teaching that encompasses a vast number of compounds, including an applicants' claimed compounds, does not by itself describe applicants claimed invention. Rather, such a prior art reference must further provide a more specific, limited teaching relating to the claimed compounds in order to anticipate the same.(See *In re Petering*, 133 USPQ 275 (CCPA 1962); *In re Ruschig*, 145 USPQ 274 (CCPA 1965); *In re Arkley*, 172 USPQ 524).

As held by the CCPA in In re Wesslau:

> It is impermissible within the framework of Section 103 to pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. In re Wesslau, 147 USPQ 391 (CCPA 1965).

In the present situation a full appreciation of Wang et al. will reveal that Wang et al. does not render obvious a composition that is useful as a sealing material for carbon dioxide refrigerants. Rather Wang et al. only teaches a composition that provides vibration dampening properties.

Applicants' claimed amounts of carbon black together with the surface area of the carbon black cannot be derived from the teachings Wang et al., much less any composition that can be

utilized as a composition for sealing materials for carbon dioxide refrigerants according to applicants' disclosure and pending claims.

Based upon the above distinctions between Wang et al. and the present invention, and the overall teachings of Wang et al., properly considered as a whole, it is respectfully submitted that the Examiner cannot rely upon Wang et al. as required under 35 U.S.C. §103 to establish a *prima facie* case of obviousness of applicants' claimed invention.

It is, therefore, submitted that any reliance upon Wang et al. would be improper inasmuch as Wang et al. does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of Wang et al. and the outstanding rejection of the claims should hence be withdrawn.

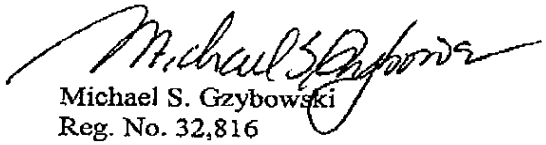
Therefore, reconsideration and withdrawal of the outstanding rejection of the claims and an early allowance of the claims is believed to be in order.

It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

If upon consideration of the above, the Examiner should feel that there remains outstanding issues in the present application that could be resolved, the Examiner is invited to contact applicants' patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,



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